Letters to the Editor and Authors’ Response

COGNITIVE IMPAIRMENT MODULATES THE EFFECT OF DEPRESSIVE SYMPTOMS ON MORTALITY IN ELDERLY PEOPLE

To the Editor:

The recent debate on the prognostic negative effect of depression on mortality (1, 2) has been significantly enriched by Mehta and colleagues’ article on the association between depression and cognitive impairment and mortality in older adults (3). The authors conclude that cognitive function and depressive symptoms can be used together to stratify elderly adults into groups that have significantly different rates of death; moreover these two risk factors are associated in a progressive, additive manner.

We would like to discuss this topic and present data of a study in an aging community-based population in Italy. The data were obtained in a multidimensional study carried out in a community-dwelling population aged 70 years and older living in the rural city of Ospitaletto, Brescia, Northern Italy (4). Of a total of 613, more than 70% of the eligible population (24.6%) died during the follow-up period.

Table 1 shows the association of depression with 60-month mortality in the four groups of elderly participants, indicating an independent association between depressive symptoms and mortality in group A (“physically healthy”) and in group C (“disabled, noncognitively impaired”) (relative risks of 2.1 and 3.2, respectively). The association was not found in group B (“cognitively impaired, nondisabled”) and in group D (“cognitively impaired and disabled”).

In the same population, we have previously demonstrated the independent association between cognitive impairment and depression with mortality (8, 9). Data observed in this analysis show that the effect of depression on mortality is modulated by cognitive function. In fact, at variance with the data of Mehta and colleagues, our data suggest that, in a population of cognitively impaired participants, depressive symptoms do not exert any effect on mortality.

Cognitive impairment may protect from the effect of depression on mortality since it reduces the insight of patients, an important mechanism mediating the consequences of mood disorders on physical health. Another explanation may rely on the fact that, in cognitively impaired patients,

<table>
<thead>
<tr>
<th>GDS</th>
<th>Depressed</th>
<th>Nondepressed</th>
<th>RR (95% CI) A</th>
<th>RR (95% CI) B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3.7 ± 3.0</td>
<td>138/55</td>
<td>386/76</td>
<td>2.6 (1.6–3.3)</td>
</tr>
<tr>
<td>Group A: physically healthy</td>
<td>3.0 ± 2.7</td>
<td>57/16</td>
<td>280/42</td>
<td>2.1 (1.2–3.7)</td>
</tr>
<tr>
<td>Group B: cognitively impaired, nondisabled</td>
<td>3.6 ± 2.8</td>
<td>14/3</td>
<td>49/12</td>
<td>0.9 (0.2–3.1)</td>
</tr>
<tr>
<td>Group C: disabled, noncognitively impaired</td>
<td>5.7 ± 3.4</td>
<td>34/18</td>
<td>32/6</td>
<td>3.3 (1.3–8.3)</td>
</tr>
<tr>
<td>Group D: cognitively impaired and disabled</td>
<td>5.8 ± 2.9</td>
<td>33/18</td>
<td>25/16</td>
<td>0.8 (0.4–1.5)</td>
</tr>
</tbody>
</table>

Notes: “Cognitively impaired” are those patients with a Mini-Mental State Exam score between 14 and 23, and “disabled” are those with 1 or more activities of daily living lost.

A = crude analysis; B = adjusted analysis for age, gender, education, and number of diseases/chronic conditions; RR = relative risk; CI = confidence interval.
depressive symptoms may be part of the dementia syndrome, whose natural history is not modified by affective status.

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REFERENCES